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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,476	05/24/2000	Raymond V. Damadian	DAMADIAN 3.0-076	4571
530	7590	11/05/2004	EXAMINER	
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			TUGBANG, ANTHONY D	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/577,476

Applicant(s)

DAMADIAN, RAYMOND V.

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 25-32 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33-44 is/are allowed.
- 6) ☒ Claim(s) 7-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/9/04 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Claims 1-6 and 25-32 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Claim Objections

4. Claims 34, 40 and 41 are objected to because of the following informalities.

In Claim 34, the phrase of "a shim" (line 2) should be recited as --a shim--.

In Claim 40, the phrase of "an intermediate element" (line 2) should be recited as --the intermediate element--.

In Claim 41, the phrase of "an intermediate element" (line 2) should be recited as --the intermediate element--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. Claims 7-12, 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki et al.

Sasaki discloses a method of making pieces comprising: providing an intermediate element (in Fig. 1a) including a plurality of ferromagnetic rods 11 with a dielectric material (molding material 12) therebetween; slicing the intermediate element along the lengthwise direction to form shim pieces each having a thickness direction corresponding to the lengthwise direction of the rods in the intermediate element (see sequence of Figs. 1b-1c and col. 4, lines 39-41), which meets all of the limitations of the claimed manufacturing method.

Regarding Claims 8-12, Sasaki further teaches assembling the shim pieces with a magnet pole, i.e. closed magnetic circuit (at col. 2, lines 46-49), in the form of a substantially closed ring with a gap and having a generally accurate shape (see Figs. 2c and 2d).

Regarding Claim 14, Sasaki teaches an additional step of trimming after slicing, to alter the profile of the shim pieces (see col. 5, lines 2+).

Regarding Claim 19, Sasaki shows that the rods are covered with a rectangular shaped dielectric sleeve 12 (in Fig. 1b).

Claim Rejections - 35 USC § 103

6. Claims 13, 15-18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al in view of Rudd et al 3,849,878.

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Sasaki discloses the claimed manufacturing method as relied upon above.

Regarding Claims 13, 15 and 16, Sasaki does not specifically teach the use of a saw to perform the slicing or an abrasive jet or milling device to perform trimming.

Regarding Claims 17 and 18, Sasaki does not teach cleaning or removing other contaminants.

Regarding Claims 20-23, Sasaki does not teach the use of a mold to form the dielectric, curing the dielectric, as well as the compositions of an epoxy or fiberglass.

Rudd teaches a manufacturing process that includes the use of a saw (see col. 3, lines 18-20) to perform slicing and a mold (see col. 4, line 10) to form the dielectric, cleaning and removing contaminants (see col. 2, lines 58+), the use of an epoxy or fiberglass as dielectric materials (see col. 3, lines 3-12), as well as curing the dielectric materials (see col. 3, lines 61+), all for the benefits of easier handling and a greater speed of manufacturing shim pieces (see col. 4, lines 35-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Sasaki by including the manufacturing process of Rudd, to positively provide easier handling and a greater speed of manufacturing shim pieces.

Regarding Claims 15, 16 and 24, it would have been an obvious matter of design choice to choose any desired means for slicing or trimming and cross-sectional shape of the rods, since applicant has not disclosed that the claimed abrasive jet, milling machine, or hexagonal cross-sectional shape, solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the means for slicing and trimming and cross-sectional shape taught by either Sasaki et al or Rudd et al. Furthermore, the claimed means for

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slicing and trimming and cross-sectional shape of the rods, as recited in either of Claims 15, 16 and 24, does not provide any manipulative difference in the claimed manufacturing method as compared to the prior art above.

Response to Arguments

7. Applicant's arguments in the response filed on 8/9/04 have been fully considered, but have not been deemed to be found as persuasive.

In regards to the merits of Sasaki et al, the applicant asserts that Sasaki does not teach “providing an intermediate element including a plurality of substantially solid elongated ferromagnetic rods” (lines 3-4 of Claim 7).

The examiner most respectfully disagrees. It is noted that the ferromagnetic rods being “substantially solid” (line 4 of Claim 7) does not preclude the core wires 11 of Sasaki from being hollow. While it appears that Sasaki does show the core wires 11 as being hollow (for example in Fig. 1c), the term “substantially” does not positively require to what degree the ferromagnetic rods must be solid. Thus, the core wires 11 of Sasaki being read as the claimed “ferromagnetic rods” as the structure of the core wires 11 satisfies the limitations that the rods must be “substantially solid”.

With respect to Claim 8, the applicant appears to be insinuating that the limitations of Claim 8 are equivalent to the limitations of Claim 33, and the examiner does not agree with this viewpoint. Nowhere in Claim 8 is there a recitation of the shim pieces being assembled on the pole of a “magnetic resonance imaging magnet”. Claim 8 only requires that the shim pieces be assembled to a “magnet pole” where the limitations of a magnet pole are very broad in the sense

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that it can be the magnet pole of *devices other than a magnetic resonance imaging magnet*. So with Claim 8, the examiner maintains that Sasaki satisfies the limitations of Claim 8 as it appears that the applicant is arguing more specifically than that which is being claimed. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Allowable Subject Matter

8. Claims 33-44 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter.

With respect to Claim 33, the prior art does not teach all of the limitations of the claimed invention including slicing the intermediate element transverse to the lengthwise direction to form a plurality of shim pieces and then subsequently assembling the shim pieces on a pole of the magnetic resonance imaging magnet to form a shim on the pole.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599.

The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'A. Dexter Tugbang', with a long horizontal flourish extending to the right.

A. Dexter Tugbang
Primary Examiner
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November 1, 2004